

SOLYCO Boost

# R-WG 108n.4 /450-455



Top performance and reliability:  
Bifacial double-glass module with TOPCon technology



## Maximum energy generation

TOPCon double-glass module with an impressive efficiency of 22.8 %, providing higher energy yield.



## Optimized performance

Enhanced power output due to white cell spaces, increasing overall efficiency.



## Extended longevity

Special combination of embedding materials guarantees maximum longevity and reliability.



## Best cell quality

Exceptional reliability thanks to the exclusive use of Grade A cells. 100 % EL tested.

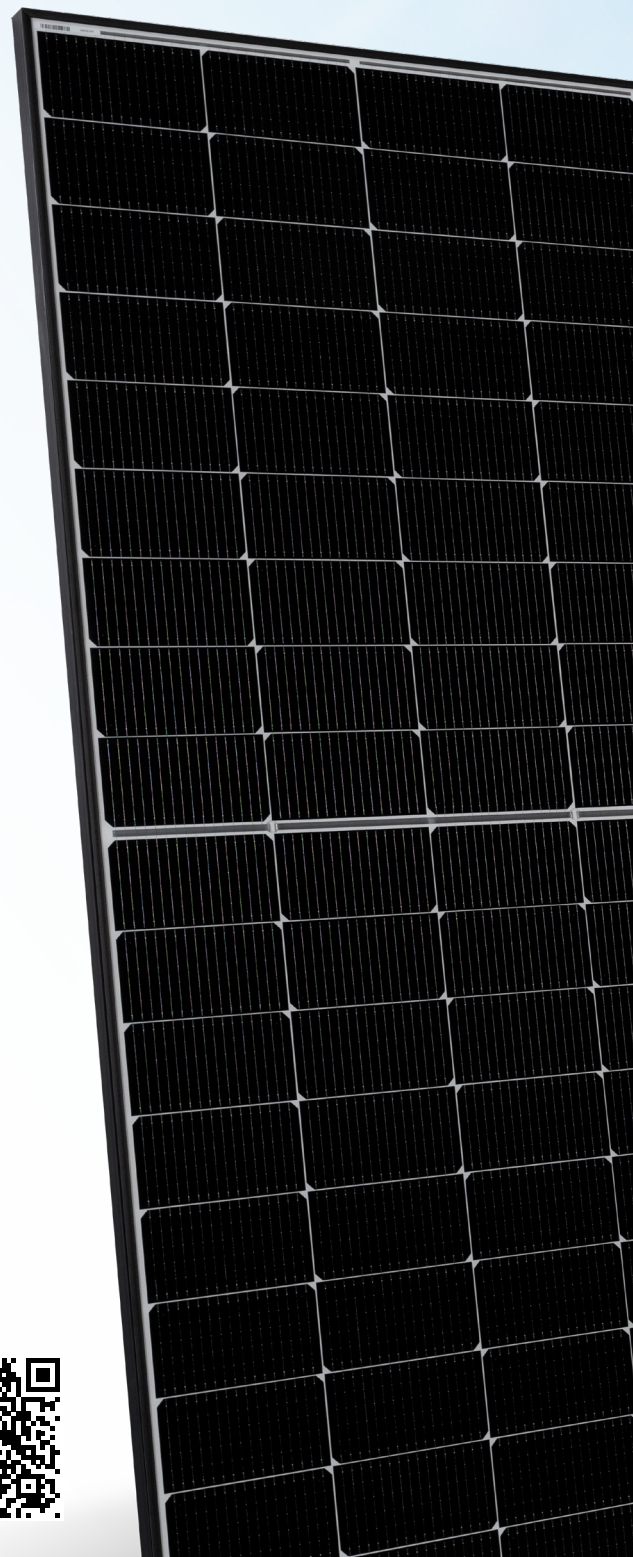


## Improved warranty

Up to 30 years product warranty and 87.4 % performance guarantee after 30 years due to exceeded standards.

## Certificates

- IEC 61215:2021 (module reliability)
- IEC 61730:2016 (module safety)
- IEC TS 62804-1:2015 (PID resistance)
- IEC 61701:2020 (salt mist resistance)
- IEC 62716:2013 (ammonia resistance)



Superior Solar Solutions

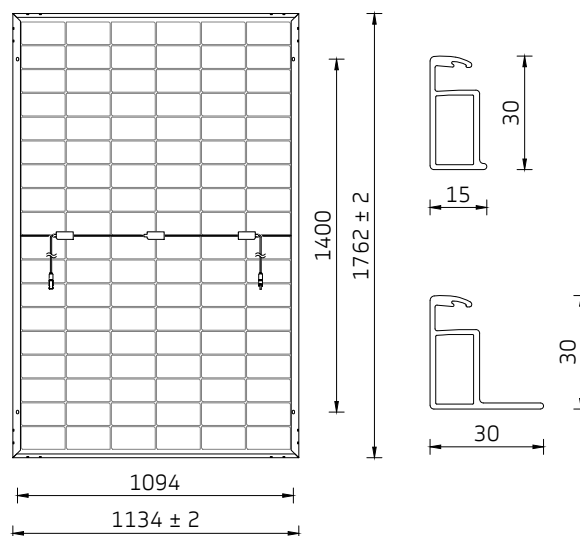
 German  
Warranty Provider



## R-WG 108n.4 /450-455

### Mechanical data

|                            |                                                                           |
|----------------------------|---------------------------------------------------------------------------|
| Cell technology            | TOPCon, monocrystalline                                                   |
| Cell size and quantity     | 182 mm x 93,4 mm; 108 half cells                                          |
| Module dimensions          | 1762 mm x 1134 mm x 30 mm                                                 |
| Module weight              | 24.5 kg                                                                   |
| Frame                      | Black anodised aluminium                                                  |
| Front glass                | 2.0 mm tempered solar glass with anti-reflective coating                  |
| Back glass                 | 2.0 mm tempered solar glass                                               |
| Junction box and IP rating | 3 pcs with one bypass diode each, potted in accordance with IP68          |
| Cable and connector        | 4 mm <sup>2</sup> solar cable, length 120 cm, STÄUBLI MC4-Evo 2 connector |



### Electrical data

| Conditions                                | 450 Wp |       |       | 455 Wp |       |       |
|-------------------------------------------|--------|-------|-------|--------|-------|-------|
|                                           | STC    | NMOT  | BNPI  | STC    | NMOT  | BNPI  |
| STC power output P <sub>max</sub> (Wp)    | 450    | 339   | 497   | 455    | 343   | 503   |
| Nominal power voltage V <sub>mp</sub> (V) | 33.32  | 31.06 | 33.95 | 33.44  | 31.23 | 34.07 |
| Nominal power current I <sub>mp</sub> (A) | 13.51  | 10.94 | 14.64 | 13.61  | 11.00 | 14.75 |
| Open circuit voltage V <sub>oc</sub> (V)  | 39.62  | 37.70 | 40.25 | 40.01  | 37.89 | 40.65 |
| Short circuit current I <sub>sc</sub> (A) | 14.05  | 11.30 | 15.59 | 14.11  | 11.36 | 15.66 |
| Bifacial coefficient (%)                  | 80 ± 5 |       |       | 80 ± 5 |       |       |
| Module efficiency (%)                     | 22.5   |       |       | 22.8   |       |       |

STC (nominal data under standard test conditions): irradiance 1000 W/m<sup>2</sup>; AM 1.5 spectrum; module temperature 25 °C; sorting for P<sub>max</sub> 0 to +5 W. NMOT (nominal data at Nominal Module Operating Temperature): irradiance 800 W/m<sup>2</sup>; AM 1.5 spectrum; ambient temperature 20 °C; wind velocity 1 m/s. BNPI (Bifacial Nameplate Irradiance): irradiance 1000 W/m<sup>2</sup> at the front and 135 W/m<sup>2</sup> at the back; applied according to a method defined in IEC TS 60904-1-2.  
P<sub>max</sub> tolerance: ±3.0 %; V<sub>oc</sub>, V<sub>mp</sub>, I<sub>sc</sub>, I<sub>mp</sub> tolerances: ±5.0 %.

### Packaging

|  |                                            |
|--|--------------------------------------------|
|  | <b>36</b><br>modules vertically per pallet |
|  | <b>936</b><br>modules per truck            |
|  | <b>936</b><br>kg per pallet                |

### Connection and operating conditions

|                                    |                                                                                         |
|------------------------------------|-----------------------------------------------------------------------------------------|
| Maximum system voltage             | 1500 V                                                                                  |
| Operating temperature range        | -40 °C ... +85 °C                                                                       |
| Mechanical resilience <sup>1</sup> | Pressure resistance tested at 5400 Pa<br>Wind suction load resistance tested at 2400 Pa |
| Safety class                       | II                                                                                      |
| Reverse current overload           | 30 A                                                                                    |
| Fire classes <sup>2</sup>          | A (UL 790)<br>B <sub>ROOF</sub> (t1) according to DIN EN 13501-5:2016                   |
| Hail resistance                    | Hailstones up to 30 mm in size and at a speed of 23.9 m/s (HW3)                         |

<sup>1</sup>Specified pressure load resistance: 3600 Pa and suction load resistance: 1600 Pa;

<sup>2</sup>For all roof slopes.

### Temperature coefficients

|                                                |             |
|------------------------------------------------|-------------|
| TC of the maximum power (P <sub>max</sub> )    | -0.29 %/°C  |
| TC of open circuit voltage (V <sub>oc</sub> )  | -0.25 %/°C  |
| TC of short circuit current (I <sub>sc</sub> ) | +0.048 %/°C |
| Nominal module operating temperature (NMOT)    | 42 ± 2      |

